



# LEARNING THEORIES: BEHAVIORISM, COGNITIVISM, CONSTRUCTIVISM

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## ABSTRACT

The purpose of this paper is to analyze how three different learning; behaviorism, cognitivism and constructivism guide the process of learning. The aim of these learning theories is to increase the transfer of learning more efficiently. These learning theories makes it possible for an educator to compare what learners are able to learn and what they can demonstrate in terms of skills and abilities. Educators must need to know the learning theories in order to create an optimal learning environments. This paper helps in bridging the gap between effective educators and three important learning theories. These theories give you an insight on how information is absorbed by a learner, followed by processing and retaining it in the process of learning. Each theory explains in its own way how learners tend to learn. Learning helps a learner in transforming gained knowledge into skills, attitudes or behaviors.

## INTRODUCTION:

My goal in this paper is to discuss important theories of learning that are relevant to educators. Different learning theories have emerged by academic scholars as they have focused on different types of learning. Some researchers have focused on learning with understanding where as others have focused on acquisition of skills of learners. Some are also studying and exploring the emergence of unique ideas through social interaction. I will also be discussing a concept map I made of learning theories and connections between the various elements depicted in that map. McClure, Sonak & Suen (1999) stated that concept map potentially is used as a learning strategy for learners and simultaneously is a means to assess learner's understanding towards any given concepts. Concept maps are considered to be a valuable source of information about the content of learner's knowledge. McClure et. al (1999) identified that extracting information by learners to organize their knowledge in a form of concept map is a time-consuming analysis but it helps in assessing idiosyncratic nature of learner's structures of knowledge. I will be displaying components in this concept map in a hierarchical pattern with the very general and inclusive concepts at the upper part of the map and the concepts which are specific in nature, will be displayed below in the hierarchy. Noval & Canas (2008) explained that the classified or hierarchical fashion for any particular domain of information mainly depends on the framework in which that information is being considered and applied by a learner. Therefore, it is always best to have a focus question which in my case is learning theories and their links with different elements. You will also see cross-links in the concept map of learning theories. Cross-links will help us in understanding that a concept in one domain of information seen on the below concept map can be seen related to a concept in a new domain. Noval & Canas (2008) posited that cross-links in helps in representing creative leaps for the learner as well in the process of creating new knowledge.

## LEARNING THEORIES:

Plato and Socrates reminded us long time back that learners are neither blank states not passive observers, in fact they are active constructors of information and meanings. Understanding the concepts of learning theories are highly important to be more effective as educators as well as learners. According to (Dunn, 2002), researchers came up with many different theories on how learners learn. However, I will be talking about three main learning theories in this assignment; behaviorism, cognitivism and constructivism learning theory. These theories have significant differences in terms of perspectives on learning. Theories help in distinguishing different ways of learning and recognizing that some learners tend to learn in ways different from ours.

### Behaviorism:

Learners are directed to listen attentively when educators are teaching. According to (Suzanne & Peterson, 2006), the assumption has been made that if learners are motivated and educators communicate their messages clearly, learning will occur. Logic goes 'apparently' that if learners do no learn, it could be owing to two factors; either they were not paying attention or they don't seem to care at all. These ideas are the basis of a learning theory that focused on behavior. Suzanne & Peterson (2006) stated that behavioral learning theory is centered on the belief that one behavior of an individual leads to another. Zhuo & Brown (2014) stated that Watson and Skinner are the originators of behavior learning theory. Watson believed on the idea that human behavior results from specific stimuli that helps in generating certain responses. He further suggested that inferences regarding human development should be made based on observation of overt behavior and not based on subconscious motives. Zhuo & Brown (2014) elaborated that idea of conditioning is central to behaviorism theory which explains that individuals are trained to respond to stimuli. Here the mind is a 'black box' is completely irrelevant.

Hence, this learning theory takes into account classical and operant conditioning to comprehend the behaviorist approach.

Bouton (1994) explained that in Pavlov's classical conditioning, a stimulus that helps in signaling a biologically important event loses its capability to evoke a response from a learner when it is presented, without that event. Skinner (1963) mentioned that the study of operant behavior clarifies the nature of the interrelation between behavior of an individual and its consequences. The work of Skinner made a way for operant conditioning as he believed that classical conditioning is too simple to be considered as a full explanation of complex human behavior. He suggested that the best way to understand human behavior is to analyze the causes of a human's action and its consequences.

Skinner's research found out that satisfying responses of individuals are conditioned whereas on the contrary, unsatisfying responses are not conditioned. Operant conditioning involves changing of individual's behavior by using reinforcement which is given after the desired behavior. Learners will repeat the desired behavior if there is a positive reinforcement. Positive reinforcement, in operant conditioning, may include verbal reinforcement or tangible rewards. In contrast, negative reinforcement can also play a vital role in strengthening one's behavior. Punishment, however, can weaken a behavior because of the negative condition being experienced as a result of the behavior and guides the individual not to repeat it again. (Burns, 1995) Burns (1995) suggested that punishment can help in creating a set of conditions designed to eliminate unacceptable behavior.

We need to understand the fact that positive and negative reinforcement techniques are used in our daily lives and our workplaces too. Many organizations use positive reinforcement technique to offer raise to their employees who exhibit outstanding performance every year. An increase in the salaries serves as a motivation for employees to do their respective jobs in the most efficient manner. Negative reinforcement can also be seen implemented in different ways in our lives. Using cell phone while driving, in Dubai, can result in a hefty fine including four black points. Usually, there is a 5% deduction from the total score per day if the students do not submit their essays or assignment on time.

Verbal reinforcement, a practice mostly commonly used, can also be considered as an example of behaviorist learning theory. Moreover, bonus points or participation examples come also under the category of behaviorist learning theory. The change in behavior of a learner mainly signifies that there has been an effective learning. Being a lecturer, I feel that this reward or punishment method is usually used to encourage or discourage the behavior of a learner.

### Cognitive Approach:

Suzanne & Peterson (2006) mentioned that behavioral theorists has contributed in making a way for cognitive theory which involved placing the mind again into the equation of learning. In this theory, focus was put on the internal thought processes of a learner and not just solely on the observable behaviors. This theory can be divided into two learning theories; social cognitive theory and cognitive behavioral theory. Hence, the theory of cognitive learning has also been built on the principles of behavioral learning theory.

Zhou & Brown (2014) explained that social cognitive theory has been initially developed with a major emphasis on learner's acquisition of social behavior by Bandura, advocator of this theory. Social cognitive theory, however, continues to emphasize on the fact that learning in a learner tends to occur in a social context and that learning is mainly gained from observation. Social cognitive theory, according to, Zhou & Brown (2014) has been applied to many diverse areas of

learner functioning such as professional choices or physical and mental health. Moreover, it has also been applied extensively by educators while understanding motivation factors in classroom and also applied by learners while learning and achieving their desired goal.

Zimmerman (1989) mentioned that learners can be described as self-regulated to a degree that they have motivationally, meta-cognitively and lastly, behaviorally active applicants when it comes to their own learning process. Zimmerman (1989) talked about the triadic reciprocity, one assumption, which is the reciprocal causation in three influential processes. A distinction has been made in personal, behavioural and environmental determinants in a self-regulated learning environment. These three factors can influence each other in a bidirectional and reciprocal manner. This means that a learner's on-going learning process is a combination of continuous interaction between contextual, cognitive and behavioral elements. For instance, learning in a classroom is influenced and shaped by many factors in that academic environment, especially when it comes to reinforcements experienced by learners from educators or others. Simultaneously, learning can be affected by thoughts of learners themselves and self-beliefs along with their interpretation of that academic environment context. Alongside, second assumption is that the internal factors such as forethought, self-reflection and existing beliefs exert substantial influence over learner's outcome more broadly. Lastly, a third assumption is that learning in a learner can sometimes occur without an immediate reflective change in behavior. In other words, learning and the demonstration of that learning in a learner are two distinct processes. The main reason behind the separation is that social learning theory not only involves the acquisition of new behavior in a learner but also involves cognitive skills, concepts, values and knowledge as well.

Salkovskis (1985) explained that in cognitive behavioral learning theory, a detailed study by researchers on cognitive and behavioral models leads to the idea that intrusive thoughts in a learner are best regarded as cognitive stimuli instead of responses. Cognitive responses can be linked to beliefs like blaming yourself for causing any harm or others. The role of cognition in this theory is to determine and predict the behavioral pattern of a learner. This theory implies that learners tend to form self-concepts that affects their behavior they display to others. These concepts, either negative or positive, can be highly affected by a learner's environment they live in.

In this learning theory, discussions, real world examples, problem solving are some of the examples I can link with this theory. Hence, learning is not merely about the change in learner's behavior; it is about change of knowledge which is stored in learner's long term memory. I also understand that providing imageries is also one of the examples of cognitive learning theory. Imageries are used quite often in my lecture slides to entertain learners and give a clear picture of what is being taught sometimes.

#### Constructivism:

According to (Mergel, 1998), behaviorism and cognitivism are mainly objective in nature. Constructivism helps in promoting a more open-ended learning involvement where the outcomes as well as methods cannot be easily measured and may not be the same for every learner. Behaviorism and cognitivism analyzes a task and break it down into manageable small portions to establish objectives and measure performance based on those objectives. Process of learning in this theory is considered to be non-linear and complex in nature. Constructivism theory is based on scientific study and observation about how learners learn. It takes into account previous experiences and ideas of learners to reconcile with any new information to find out if it changed what learners already believed in or discarding the new information is what learners must do. Learners must be actively involved in a process of asking questions, exploring and assessing what they already know.

Hein (1991) mentioned that John Dewey has expressed the core ideas in this learning theory and there can be seen a common acceptance of this old set of thoughts and ideas. Hein (1991), while discussing some principles of constructivism learning theory, explained that learning cannot be considered as the passive receiving of information which prevails everywhere mostly but instead, learning asks learner to engage with the world to derive meanings out of it. Furthermore, learning has two components; constructing systems of meaning and secondly, constructing meaning. For instance, if learners understand the chronology of series of dates when it comes to historical events, side by side, learners are also learning the gist of the word 'chronology'. Each meaning a learner forms makes them better able to attach understanding to other sensations which tends to fit a similar form.

Another principle discussed by Hein (1991), is that physical actions may be essential for learning in some cases. For instance, for children, educators provide activities to engage their minds as well as the hands to learn in a more effective manner. This activity has been named as a reflective activity by Dewey. Moreover, learning also involves language. Researchers have observed that some learners talk to themselves while they learn. Language and learning are mainly intertwined most of the times in the process of learning.

Learning is widely considered as a social activity. In social constructivism learning theory, social aspect of learning i.e. interaction with others is an integral

aspect of learning. According to (Palincsar, 1998), social constructivist focuses on the idea that there is an interdependence of individual and social processes in the co-construction of information. Learning can also be considered as contextual because as learners, we do not learn isolated theories and facts without pondering over them in great detail. We learn these facts of theories in relation to what else we know and believe and how it can further linked to our existing knowledge. This implies on the fact that we cannot divorce our learnings from our daily lives. Hein (1991) also mentioned that motivation is a key component when it comes to learning. It is not only the case that motivation solely can contribute in the process of learning, in fact it is highly important in learning for learners.

Case studies, research projects, brainstorming and collaborative learning are some of the activities we use quite frequently when it comes to the process of learning. These activities must be incorporated in the lectures by lecturers so that learners are better able to construct knowledge. Learning revolves around the idea that every learner always interprets to create the meaning of his or her own experiences. This learning theory helps you grab the concept that learners are able to construct new meaning and ideas based on their experiences they have had in the past. Human mind is a complex thing. We are always involved in the process of evaluating, analyzing and accommodating our new experiences.

#### CONCLUSION:

In this paper, I have summarized three important learning theories that we can apply in educational contexts. Different learning theories helps you comprehend that how learners usually acquire knowledge and how learning occurs in different stages. This further elaborates that all learners are not same in nature. Every learner has a unique way of learning and increasing their knowledge base. It is always good for educators to work according to theories. Educator's practice can be motivated and guided by theories about what can be more helpful for learners in terms of learning. Learning as well as teaching activities can be further redesigned in future and implemented to increase the quality of the learning process. These theories help in providing a guidance towards individual differences among learners and to work towards including more sophisticated and well-informed educational programs for learners. For good teaching, educators must be able to create and use along with the construction and reconstruction theories of learning. These learning theories hold contrasting ideas in the purpose and process of education and learning. It is highly important to recognize that these theories can be applied to different ways of acquisition of knowledge. The principles in these learning theories serve as guidelines to select strategies, techniques as well as instructional tools to promote the process of learning. These learning theories depict the many ways of how learners tend to learn. These theories have helped in clarifying that one needs to identify their own particular way of learning and simultaneously, recognize that learners do not follow a similar pattern. Activities such as learning and teaching can take principles of learning into account and implement it accordingly in the syllabus.

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